

WHAT IS CLAIMED IS:

1. A device for containing emboli within a left atrial appendage of a patient, comprising:

a frame that is expandable from a reduced cross section to an enlarged cross section, the frame extending between a proximal hub and a distal hub; and

a slider assembly coupled to the distal hub of the frame, wherein the slider assembly comprises:

a guide tube having a channel therein extending proximally away from the distal hub; and

a nut longitudinally moveable within the channel of the guide tube over a predetermined distance relative to the guide tube, wherein the nut is operable to be releasably coupled with an elongate core;

wherein movement of the nut relative to the guide tube is at least partially limited by interference between a portion of the nut and a portion of the guide tube.

2. The device of Claim 1, wherein the guide tube includes at least one slot extending at least partially along a length thereof.

3. The device of Claim 2, wherein the nut includes at least one flange extending into the at least one slot, wherein movement of the nut within the at least one slot is at least partially limited by interference between the at least one slot and the at least one flange.

4. The device of Claim 1, wherein the nut includes a mating surface adapted to couple with a corresponding mating surface of the elongate core.

5. The device of Claim 4, wherein the nut is internally threaded.

6. The device of Claim 1, wherein the proximal hub includes a pin adapted to engage a control line.

7. The device of Claim 1, further comprising a barrier on the frame to contain embolic material.

8. An implant adapted to be positioned within an opening inside the body of a patient, the implant comprising:

a frame having a proximal end and a distal end; and

a slider assembly connected to a portion of the frame, the slider assembly comprising a receiving portion adapted to releasably engage a delivery device, the receiving portion being moveable relative to the frame to allow limited motion of the delivery device without substantially affecting the position of the implant while the receiving portion is releasably engaged with the delivery device.

9. The implant of Claim 8, wherein the receiving portion is an internally threaded surface adapted to receive an axially moveable core that extends through the frame.

10. The implant of Claim 8, wherein the slider assembly comprises an outer tube.

11. The implant of Claim 10, wherein the slider assembly further comprising an inner member slideable relative to the outer tube.

12. The implant of Claim 11, wherein the inner member includes said receiving portion.

13. The implant of Claim 11, wherein the inner member is a nut slideable within the outer tube.

14. The implant of Claim 8, wherein the outer tube is connected to the distal end of the frame.

15. The implant of Claim 8, wherein the frame is enlargeable from a collapsed configuration to an expanded configuration.

16. A method of delivering a containment device to the left atrial appendage of a patient, comprising:

providing a frame that is expandable from a reduced cross section to an enlarged cross section, the frame extending between a proximal hub and a distal hub, the frame being releasably coupled near its proximal hub to a control line extending proximally away from the proximal hub;

providing a slider assembly connected to the frame, the slider assembly comprising a guide tube extending proximally from the distal hub and an inner member slideably received within the guide tube, the inner member being releasably coupled to an elongate core that extends proximally through the proximal hub, wherein movement of the inner member relative to the frame is at least partially

limited by interference between a portion of the inner member and a portion of the guide tube;

delivering the implant to the left atrial appendage of the patient;

expanding the frame within the left atrial appendage by providing relative movement between the control line and the elongate core, wherein the elongate core is moveable relative to the implant while coupled to the inner member when the frame is positioned within the left atrial appendage without substantially affecting the position of the implant, and

releasing the elongate core from the inner member and the control line from the implant, and removing the elongate core and the control line from the patient.

17. The method of Claim 16, further comprising, after expanding the frame within the left atrial appendage, testing the implant for at least one clinically significant characteristic.

18. The method of Claim 17, wherein testing the implant comprises evaluating a characteristic selected from the group consisting of residual compression of the implant, implant location, engagement of the implant in the left atrial appendage, sealing of the implant in the left atrial appendage and stability of the implant.

19. The method of Claim 16, wherein the elongate core is releasably coupled to the inner member through external threading of a distal portion of the elongate core and internal threading of the inner member.

20. The method of Claim 16, wherein the inner member is a nut that slides over a limited distance within the guide tube.

21. The method of Claim 16, wherein the guide tube includes at least one slot extending at least partially along a length thereof, and the inner member includes at least one flange extending into the at least one slot, wherein movement of the inner member within the at least one slot is at least partially limited by interference between the at least one slot and the at least one flange.

22. A method of delivering a medical implant to a desired location within a patient, comprising:

providing an implant having a proximal end and a distal end;

delivering the implant to the desired location, the implant being at least partially carried to the desired location by an elongate core operably connected to and extending proximally from the implant;

allowing movement of the elongate core relative to the implant at least while the implant is positioned at the desired location and while the elongate core remains operably connected to the implant without said movement substantially affecting the position of the implant; and

releasing the elongate core from the implant.

23. The method of Claim 22, wherein the implant is delivered to a left atrial appendage of a patient.

24. The method of Claim 23, wherein the implant is expandable within an opening of the left atrial appendage of the patient.

25. The method of Claim 22, wherein the elongate core is operably connected to the implant through a slider assembly connected to the implant.

26. The method of Claim 25, wherein the slider assembly including a guide tube extending proximally from the distal end of the implant, and an inner member slideable within the guide tube and having a mating surface adapted to releasably engage a distal portion of the elongate core.

27. The method of Claim 26, wherein the inner member is internally threaded.

28. The method of Claim 22, wherein the elongate core is moveable over a range of about 3 to 35 mm relative to the implant while the elongate core remains operably connected to the implant.

29. A system for preventing the release of embolic material from the left atrial appendage of a medical patient, comprising:

an axially moveable core having a proximal end and a distal end;

an implant having a proximal end and a distal end; and

a slider assembly positioned within the implant, the slider assembly comprising:

a guide tube extending proximally from the distal end of the implant;

and

a nut slideably received and substantially coaxially aligned within the guide tube, the nut being operable to releasably engage a distal portion of the axially moveable core;

wherein movement of the axially moveable core when engaged with the nut allows the nut to slide within the guide tube without substantially affecting the position of the implant.

30. The system of Claim 29, wherein the guide tube includes at least one slot extending at least partially along a length thereof.

31. The system of Claim 30, wherein the nut includes at least one flange extending into the at least one slot, wherein movement of the nut within the at least one slot is at least partially limited by interference between the at least one slot and the at least one flange.

32. The system of Claim 30, wherein the at least one slot has a length of between about 3 to 35 mm.

33. The system of Claim 29, wherein the implant is enlargeable from a collapsed configuration to an expanded configuration.

34. The system of Claim 33, wherein the implant comprises a frame extending between a proximal hub and a distal hub.

35. The system of Claim 34, wherein the axially moveable core is adapted to extend through the proximal hub and into the guide tube.

36. The system of Claim 34, further comprising a control line adapted to engage the proximal hub, and wherein the implant is enlarged by causing relative movement between the axially moveable core and the control line.

37. The system of Claim 29, wherein the distal portion of the axially moveable core is externally threaded to mate with an internally threaded surface of the nut.

38. A medical device deployment system, comprising:

an elongate body having a proximal end and a distal end, the proximal end adapted to be positioned outside of a patient's body and the distal end adapted to be positioned within a patient's body;

an implant adapted to be positioned within an opening inside the patient's body; and

a slider assembly connected to a portion of the implant, the slider assembly adapted to releasably engage a distal portion of the elongate body, the slider assembly when engaged with the elongate body permitting longitudinal movement of the elongate body over a predetermined range without substantially affecting the position of the implant.

39. The system of Claim 38, wherein the implant is enlargeable from a collapsed configuration to an expanded configuration.

40. The system of Claim 38, wherein the slider assembly includes an outer tube fixed relatively to the implant and an inner member slideably received within the outer tube adapted to releasably engage a distal portion of the elongate body.

41. The system of Claim 38, wherein the elongate body when engaged with the slider assembly prevents rotational movement between the elongate body and the slider assembly.

42. A medical device deployment system comprising:

an implant adapted to be positioned within an opening inside a patient's body;
an elongate body adapted to releasably engage at least portion of the implant;

and

an outer tube adapted to slideably receive at least a portion of the elongate body therein, the elongate body being relatively moveable within the outer tube over a predetermined distance without substantially affecting the position of the implant.

43. The medical device deployment system of Claim 42, wherein the outer tube is part of the implant and is connected thereto.

44. The medical device deployment system of Claim 43, wherein the elongate body has a distal portion adapted to releasably engage the outer tube.

45. The medical device deployment system of Claim 43, wherein the elongate body releasably engages the outer tube through a sliding member within the outer tube.

46. The medical device deployment system of Claim 42, wherein the implant is enlargeable from a collapsed configuration to an expanded configuration.

47. The medical device deployment system of Claim 42, wherein the elongate body has a proximal end extending outside the body of the patient.